

Application No. : 037,945
Filed : March 10, 1998

Claim 3. Claims 11 and 12 stand rejected on secondary references. In each case the rejections are under 35 U.S.C. §103(a).

It appears that the Examiner and Applicants are in agreement that the German '885 patent, as understood from the three-paragraph translation (further as rewritten by the Examiner) appended to the two-page German language document, has as its subject matter a two-phased MOS transistor manufacturing process using dry oxygen in the second phase for white ribbon elimination. The reference contains no suggestion whatsoever that would lead one of ordinary skill in the art to modify the skeletal disclosure in the German '885 patent to eliminate the first phase of the process, i.e., to eliminate wet oxidation as the Examiner contends would be obvious to one of ordinary skill in this art.

The Examiner asserts that it would be obvious to one of ordinary skill in the art to do so without being able to point to any suggestion in the German '885 reference or in any secondary reference, that would lead one of ordinary skill in the art to do so. As Applicants have previously pointed out, the standard to be applied is not whether a prior art reference could be modified to arrive at Applicants' invention, but whether a prior art reference suggests the modification necessary to arrive at Applicants' invention. "The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon*, 221 U.S.P.Q. 1125, 1127, Fed. Cir. 1984. As Applicants continue to point out, the German '885 reference not only fails to give positive instructions to omit the wet oxidation step, but the skilled artisan, from a reading of the German patent and/or its translation, would have no reason to modify the German '885 reference by eliminating that first phase treatment of a two-phase treatment process.

The Examiner's rejection of Claim 3 looks to the further teaching of both Marshall et al. and Miyoshi et al. to provide what the German reference lacks, i.e., any disclosure of oxidation at pressures greater than 5 atm or at any specific temperature for the second stage employed therein. The Examiner looks to Marshall et al. for an isolated disclosure of oxidation of silicon at 140 atm at 800°C and asserts that it is comparable to a lower pressure (1 atm) at a hotter temperature (1200°C). Why one of ordinary skill in the art would look to this summary observation contained in Marshall et al. to modify the disclosure of the German '885 reference, containing no temperature or pressure parameters whatsoever, is not consistent with an appropriate combination of prior art references.

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Similarly, the Examiner refers to an isolated reference to atmospheric pressure of 6.4 atm in Miyoshi et al., to somehow justify appending such disclosure to the skeleton of a teaching provided by the German '885 reference. The Examiner can point to no teaching in the prior art that would suggest such a selective combination with Miyoshi any more than the prior art suggests the selective combination with Marshall.

Claims 11 and 12 differ from Claim 1 by specifying a partial pressure between 5 atm and 30 atm at a temperature greater than 900°C. Thus Claim 11 is more limited than Claim 4, which is dependent from Claim 3, which in turn is dependent from Claim 1. Yet the Examiner no longer relies upon the German '885 patent at all in his rejection of Claims 11 and 12, but now raises Marshall et al. to the level of a primary reference and combines it with Sze for the rejection under 35 U.S.C. §103(a). While the Examiner admits Marshall does not disclose oxidation pressures less than 30 atm, the Examiner states his personal opinion that "The choice of particular pressure would have been a matter of routine optimization within the teachings of the reference." That not being enough, the foregoing personal observation of the Examiner is then combined with the Examiner's selective reading of Sze, that "discloses the suitability of dry oxidation at pressures less than 30 atm on page 122."

While the Examiner has selected excerpts from pages 121-123 of a document identified as Sze, the reference contains no discussion of actual devices to which such "suitability of dry oxidation at pressures less than 30 atm" is being applied. Thus there is no teaching in the Sze reference that would lead one of ordinary skill in the art to combine it with the Marshall reference for the purpose of accomplishing dry pressure local oxidation of silicon to which Marshall is directed. While there is no doubt that one can go to many isolated prior art documents and pick and chose "conditions" which can be alleged to correspond to conditions in the process recited by Applicants' claims, the Examiner fails to point to any prior art teaching that supports such a random combination of "conditions."

In summary, it is believed that the Examiner's combination of prior art references is untenable when applied to the claims under final rejection, particularly as amended several times since the Examiner first raised the identical rejections in an initial Patent Office communication relating to the parent application.

At such time as the Examiner indicates there to be allowable subject matter, the provisional rejection over claims of an application identified as pending application No.

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08/565,991 -- should it continue to be asserted -- will be dealt with by an appropriate terminal disclaimer.

If a telephone call would expedite the prosecution of this application, the Examiner is invited to call the undersigned.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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Dated: 1/19/01

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